

## **REMARKS**

In the Office Action mailed April 22, 2003, the Examiner noted that claims 1-14 were pending in the application and the Examiner allowed all of the claims except for claim 14. By this amendment, new claim 15 has been added. Thus, claims 1-15 are pending in the application. The Examiner's rejection is traversed below.

### **The Interview**

Appreciation is expressed to Examiner Rodriguez and Examiner Ip for the interview which was granted on October 27, 2003. During this interview, the undersigned discussed the rejection of claim 14 over the prior art with the Examiners, but no resolution of the rejection was achieved. The substance of the arguments presented at the interview, as well as additional comments and arguments are presented below.

### **Rejection Under 35 U.S.C. §102**

On page 2 of the Office Action the Examiner rejected claim 14 under 35 U.S.C. §102 as anticipated by newly cited U.S. Patent 4,339,822 to Kolodzey. In the rejection, the Examiner relied upon Figure 1 and columns 2 and 3 of Kolodzey. On page 2 of the Office Action the Examiner took the position that the semiconductor laser diode 16 in Figure 1 receives a pre-biased current which is denoted as  $I_{BIAS}$ , a bias current established by the level shifting means, and a modulation current established by the means for converting the increased voltage to a modulating current (denoted by reference number 15).

### **U.S. Patent 4,339,822 to Kolodzey**

Figure 1 of Kolodzey depicts a portion of a laser digital modulator circuit including a logic level input 10 which provides a first control signal. An ECL gate or TTL to ECL translator integrated circuit 11 is described as a means for receiving the first control signal and generating a second control signal therefrom (column 2, lines 23-28). Circuit 12 is described as a means for increasing the voltage to a sufficient level and circuit 15 is described as a means for converting the increased voltage to a modulating current in order to modulate diode laser 16 (column 2, lines 59-66).

Claim 14 Patentably Distinguishes Over the Prior Art

Claim 14 is directed to a method for driving a semiconductor laser which comprises:

supplying a first bias current for driving the semiconductor laser at least at a time of non-output of data, to drive the semiconductor laser in a spontaneous emission area;

supplying a second bias current to the semiconductor laser prior to data transmission by delaying a data signal; and

supplying a pulse current to the semiconductor laser a predetermined time after commencement of supplying the second bias current.

Applicant has reviewed the portions of columns 2 and 3 referenced by the Examiner and is unable to locate any teaching of supplying a first bias current "at least at a time of non-output of data, to drive the semiconductor laser in a spontaneous emission area". At the interview, the Examiner took the position that "driving a laser in a spontaneous emission area" is standard practice in the art. It is respectfully requested that the Examiner supply prior art disclosing this feature.

In addition, applicant is unable to locate any teaching of supplying a second bias current "prior to data transmission by delaying a data signal." At the interview, the Examiners took the position that means 12 in figure 1 of Kolodzey increases the voltage to a sufficient level to act to supply a bias current to the semiconductor laser 16 via the transistor 17 and the means 15. The Examiners stated that the data signal is delayed by means 12 while the bias signal is produced, in that the data signal is then provided to means 15 which produces a modulating current. Applicant has reviewed the Kolodzey specification, and particularly the portions pointed out by the Examiners, but have been unable to locate any discussion of a data delay as suggested by the Examiners.

Therefore, it is submitted that Kolodzey does not teach or suggest the above-described features of the present invention.

In summary, it is submitted that Kolodzey does not teach or suggest:

supplying a first bias current for driving the semiconductor laser at

least at a time of non-output of data, to drive the semiconductor laser in a spontaneous emission area;

supplying a second bias current to the semiconductor laser prior to data transmission by delaying a data signal;

Therefore, it is submitted that claim 14 patentably distinguishes over the prior art.

#### New Claim 15

At the interview, the Examiners commented that they viewed the features of the last paragraph of claim 13 to be particularly significant. Accordingly, Applicant has added a new claim 15 which recites some of the features of claim 14, but which also recites the features of the last paragraph of claim 13. Therefore, it is submitted that claim 15 patentably distinguishes over the prior art.

#### Allowable Subject Matter

On pages 3 and 4 of the Office Action a Statement of Reasons for Allowance is provided. The Statement includes paraphrasing of certain portions of claims 1 and 13. In view of the fact that the paraphrasing is not consistent with the claim language and contains some errors in terminology, it is submitted that the claims themselves should be relied on to construe the features of the invention.


Summary

It is submitted that all claims in the application are now in condition for allowance.  
Reconsideration of the claims and an early notice of allowance are earnestly solicited.

Respectfully submitted,

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